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GREATER CLARITY IN RUSSIAN TECHNICAL LANGUAGE

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Russian scientific and technical terminology is one of the basic factors in Soviet culture, but unfortunately it is also one which is the least developed. The greatest fault is that Soviet terminology has adapted many foreign words which now do not fit the rapidly expanding field of Soviet science.

For example let us take the terms "American malleable iron" and "European malleable iron." Actually there is nothing "American" or "Western European" about this iron. The Soviet Union is the home of the most efficient method for the production of this iron. Why would it not be better therefore to term such iron as "graphitized malleable iron" (ferrite) or "decarbonized malleable iron" (perlite). In addition there are the terms "American annealing" or "European annealing." All that these terms attempt to express is either "annealing in a neutral medium" or "annealing in an acid medium."

In agricultural literature reference is still being made to either "American" or "European" threshers, seeders, plows, etc. This permits the reader to draw the wrong conclusions, for he will assume that the American and Western European nations apparently have leadership in these fields. Actually, the greater majority of agricultural equipment now in use in the Soviet Union is made at home.

Soviet authors are too prone to accept firm and family names which they find in foreign catalogues. In addition, many of the so-called family-name phenomena are erroneously named. For example D. K. Chernov determined the presence of creep on the surface of deformed objects in 1870. Yet this phenomenon is known as "Lider's lines" in honor of a German scientist who discovered their existence in 1890. As another example, in 1831 Pavel P. Anosov described the microstructure of steel. Yet, to this day, the structure of present-day steel is known as "sorbite" after Sorb, the Englishman who published a work on this subject in 1863. Similar examples are legion.

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Criticism is directed to such works as "Construction and Dynamics of an Express Automobile" by V. V. Belman, and "Automobile Clutches and Transmission Boxes" by P. M. Khel'dt. Belman, with true sympathy for the bourgeois nomenclature, has replaced all true Russian words with foreign terms. For example, he employs French engineering terms: "démarrage" instead of "zanos" (skid or slip), "déparage" instead of "razgon" (acceleration), and the word "liner" instead of "vtulka" (bushing). Khel'dt, another writer of technical literature, who shows no pride for the Russian language in his work, talks about such phenomena as "pitting," "pitch," "scoring," etc.

In addition, various equipment is known by its firm name, such as the Blake blocking equipment, GM and White transmission boxes, etc. It would be much more advantageous for the Soviet reader to have equipment named according to its structural characteristics rather than by firm names. Thus, it would be possible to nurture the national roots of our language and to achieve greater precision when describing various equipment.

For example, the well-known process of centrifugal casting in a sand mould is known as "Muvud's method" or the "sandspoon method." Both of these are tainted foreign expressions. It would be much more nationalistic and more to the point to call the process "the method for centrifugal casting with sand moulds."

In each field of technology the majority of foreign-tainted terms can be replaced with simple and clear Russian terms. Some of the suggestions published by MashGiz for metal working follow:

A. Terms From Which Foreign (Family) Names Can Be Omitted

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| 1. Pfauter's method of milling gears | zubofrezernaniye (gear milling) |
| 2. Fellows method of milling gears | zubofolbleniye (gear slotting) |
| 3. Hag's method of milling gears | struganiye zubov (gear planing),
or zubostroganiye (gear shaping) |
| 4. Pfauter's machine tool | zubofrezernyy stanok (gear miller) |
| 5. Fellow's machine tool | zubofolbeznyy stanok (gear slotter) |
| 6. Johnson's gauge (flat-parallel) | kontsovyye mery (terminal gauge) |
| 7. Hook's joint | universal'nyy sharnir (universal joint)
or universal'naya mufta (universal
coupling), etc. |

B. Terms Which Can Be Completely Replaced

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| 1. Hypermilling | vysokoskayostnoye frezerovaniye
(high-speed milling) |
| 2. Bernishevats' (burnish) | polirovat' (polish) or
uplotnyat' poverkhnost' (tighten
the surface) |
| 3. Luft | igra (play) or
chrezmernyy razor (excessive clearance) |
| 4. Slits | prorez' v golovke vinta, etc. (slotting
the heads of screws) or
shponka na val or vo vtulke (slotting
spindles or slotting bushings) |
| 5. Lapping | pririrka (lapping) |
| 6. Axial | osevoy (axial) |

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| 7. Extruding | vydavlivaniye (stamping) |
| 8. Step-by-step drilling | stepenchatoye sverleniye (stage drilling) or sverleniye s periodicheskim vyvodom sverla (drilling with periodic withdrawal of the drill) |
| 9. Pretsizionnyy (precision) | vysoko tochnyy (high precision) |
| 10. Damping | gasit' (quench) or zaglushat' (smother or damp) |
| 11. Tsapfa (zapfer, German) | sheyka ship (collar pin) |
| 12. Galtobaniye | ochistka or polirovka v barabanu (cleaning or polishing in drums) |
| 13. Nagartovka | naklep (riveting) |

Experience has shown that the problem of clarifying the scientific and technical language is a problem for scientists, technicians, philologists, as well as those interested in politics.

This struggle is directed mainly against those foreign words which do not satisfactorily describe a piece of equipment or some technological process. For example, it is not suggested that words like thermometer, Roentgen rays, amperemeter, microscope, etc., be changed for these words are universal.

The Committee for Technical Terminology, Academy of Sciences USSR, has already done much valuable work in this field. However, this is a problem which concerns all, and all are urged to contribute to its solution.

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